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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/301,438	04/28/1999	CHRISTOPHER K. WOLF	NS-3799US	5559

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EXAMINER

NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/301,438

Applicant(s)

WOLF ET AL.

Examiner

Steven HD Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-5, 12, 18-19, 21-23 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duruoaz (USP 6363207) in view of Oda (USP 6157674).

Duruoaz discloses a decoder system (Fig 1-11 and Col. 1, lines 5 to col. 18, lines 61) comprising a stream demultiplexer (Fig 2, ref 52) for demultiplexing transport stream from a DVD or DVB having timing information and storing the demultiplexed data in a data buffer without their timing information (Fig 5, Ref 300-322 and timing information is stored in a separated buffer 302 and 324), said stream demultiplexer further generating messages about the stored data and their location in the data buffer (Fig 3-4); and a control unit (Fig 2, Ref 80) for receiving the generated messages and providing in response thereto instructions about the stored

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data (See col. 7, lines 45 to col. 9, lines 33); the messages are recorded on tags containing information about the time stamp of the data and their storage location in the data buffer wherein the tags is stored in a memory separate from the data buffer; the control unit in response to the tag generates a task definite packet specifying the location of video data stored in the buffer and using this task to fetches the video data from data buffer to decoder to decode it at the specified time; (Fig 5, Ref 300 and 320 for storing data and 302 and 324 for storing tags having a task for specifying the location of stored video data) and audio decoder retrieving audio data stored in the data buffer for decoding and video decoder retrieving video data stored in the data buffer for decoding (Fig 2, Ref 56 and 58) and message queue for storing message from the multiplexer (Fig 1, Ref 322). However, Duruoaz fails to disclose a demultiplexer for depacketizing data bytes for storing in the buffer. Oda discloses a demultiplexer, which includes a depacketizer for depacketizing the mpeg signal and storing into the buffer (Fig 2, Ref 20 demultiplexes and depacketizes the mpeg signal and stores into the buffer 220 and 228).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a packetizer into a demultiplexer for depacketizing the mpeg signal before storing into buffer as disclosed by Oda into Duruoaz's decoder. The motivation would have been to prevent under or overflow of the buffer.

4. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duruoaz and Oda as applied to claims 1 and 24 above, and further in view of Nuber (USP 5703877).

Duruoaz and Oda fail to disclose the claimed invention. However, in the same field of endeavor, Nuber discloses an audio decoder for detecting sync word in the audio frame and determining the presentation time of audio data frame using the extracting time stamp of the

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associated data packet extracted by stream demultiplexer and sync word detected by the audio decoder (Fig 4 and col. 4, lines 28-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of using a sync word and presentation time of data packet for determining the output presentation time for audio data as disclosed by Nubber's system into Duruoz's and Oda's decoder. The motivation would have been to synchronize between the audio and video signals.

5. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duruoz and Oda as applied to claims 1 and 24 above, and further in view of Terashima (USP 6163647).

Regarding claims 15-17, Duruoz and Oda fail to disclose the claimed invention. However, in the same field of endeavor, Terashima discloses the buffers (Fig 1, Ref 13 and 23) for coupling between the audio decoder and video decoder (Fig 1, Ref 12 and 22) and audio processor and video processor (Fig 1, Ref 14 and 24) wherein the audio processor retrieving the decoded audio data from the audio output buffer for processing and input to a audio digital to analog converter (Fig 1, Ref 1) and the video processor retrieving the decoded video data from the video output buffer for processing and input to a video display (Fig 1, Ref 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply the buffers between the decoders and processors as disclosed by Terashima's system into Duruoz's and Oda's decoder. The motivation would have been to synchronize between the audio and video signals.

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6. Claims 6-11, 20 and 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duruoz and Oda as applied to claims 1 and 24 above, and further in view of Maturi (USP 5559999).

Regarding claims 6-11 and 28-34, Duruoz and Oda fail to fully disclose the claimed invention. However, in the same field of endeavor, Maturi discloses (Fig 1-11 and Col. 1, lines 8 to col. 8, lines 49) the data bytes are stored on tags that includes a time stamp and their location (Fig 4); control unit responds to the video tag during the synchronous time for generating a location in the buffer (Fig 4, tag 000, pointer 000) and using this location to transmit the data from the buffer to decoder (Fig 3, Ref 26 decoder receives data from buffer according to the decoding time, col. 7, lines 28-36) and control unit generates task definition packets for decode by the video decoder during the next synchronization cycle, said synchronization cycle defined as the time period between two successive synchronization signals (col. 8, lines 6-48); steady state and during the normal operating conditions of the decoder system, control unit is interrupted only during the occurrence of a synchronization signal for audio and video decode and presentation, video decoder fetches and decodes data only in response to the existence of a task definition packet (Fig 4 and col. 7, lines 5-63), control unit is central unit, video decoder, audio encoder (Fig 3, ref 18, 26 and 28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply Maturi's teaching above into Duruoz's and Oda's system. The motivation would have been to synchronize between the audio and video signals for playback.

Regarding claim 20, Duruoz discloses a clock. However, in the same field of endeavor, Maturi discloses a clock generator and system timer (Fig 3, 38 and 40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a system timer and clock generator as disclosed by Maturi's system into Duruoz's and Oda's system. The motivation would have been to synchronize the clock between the transmitter and receiver and the audio and video signals for playback.

7. Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duruoz, Oda and Maturi as applied to claim 24 above, and further in view of Nuber (USP 5703877).

Regarding claims 35-36, the claims 35-36 are similar to claims 13-14. Therefore, these claims are rejected under similar rationale.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of using a sync word and presentation time of data packet for determining the output presentation time for audio data as disclosed by Nubber's system into Duruoz's and Maturi's and Oda's decoder. The motivation would have been to prevent under or overflow of the buffer.

8. Claims 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duruoz, Oda, Maturi and Nuber as applied to claim 24 above, and further in view of Terashima (USP 6163647).

Regarding claims 37-38, the claims 37-38 are similar to claims 15-17. Therefore, these claims are rejected under similar rationale.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply the buffers between the decoders and processors as disclosed by Terashima's system into the decoder of Duruoz, Oda, Maturi and Nuber. The motivation would have been to synchronize between the audio and video signals.

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9. Claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maturi (USP 5559999) in view of Oda (USP 6157674) and Nuber (USP 5703877).

Maturi discloses a decoder system (Fig 1-11 and Col. 1, lines 8 to col. 8, lines 49) comprising a stream demultiplexer (Fig 3, ref 22) for demultiplexing transport stream and storing the demultiplexed data in a data buffer (Fig 3, Ref 20), said stream demultiplexer further generating messages about the stored data and their location in the data buffer (Fig 3, ref 20b and 20d is a location of the data in the buffer and data type "video or audio", see Fig 4); and a control unit (Fig 3, Ref 18 for receiving the location tag and time stamp and using this information to retrieve the stored data) for receiving the generated messages and providing in response thereto instructions about the stored data (See col. 5, lines 34 to col. 6, line 19) and video decoder for retrieving video data from the buffer for decoding it and audio decoder for retrieving audio data from the buffer for decoding it. However, Maturi fails to disclose a demultiplexer for depacketizing data bytes for storing in the buffer and audio decoder for detecting sync word in the audio data. Oda discloses a demultiplexer, which includes a depacketizer for depacketizing the mpeg signal and storing into the buffer (Fig 2, Ref 20 demultiplexes and depacketizes the mpeg signal and stores into the buffer 220 and 228) and Nuber discloses an audio decoder for detecting sync word in the audio frame (Fig 4 and col. 4, lines 28-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a packetizer into a demultiplexer for depacketizing the mpeg signal before storing into buffer as disclosed by Oda and audio decoder for decoding the sync word from audio data as disclosed in Nuber's decoder into Maturi's decoder. The motivation would have been to synchronize the video and audio signals during playback.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Veltman (USP 5396497) discloses a method for synchronization AV information.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

A handwritten signature in black ink, appearing to read 'Steven HD Nguyen', written in a cursive style.

Steven HD Nguyen
Primary Examiner
Art Unit 2665
December 27, 2002